

1

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code

2

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

(OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

3

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies.

4

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

5

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
-------------------------------	-------------------------------------	--------------------------	-------------------------------------------	--------------------------------------------------------------------------

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Facility Name** located in **Name of County**. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio
EPA
Source
Number

P160

P154^{1,2}

T003^{1,2}

P155²

P151
(IF
P151 IS
MODIFIED)¹

P156^{1,2}

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
			T009 ^{1,2}	
		T007 ^{1,2}		
	T005 ^{1,2}			
				T010 ^{1,2}
P157 ^{1,2}				
			P158 ^{1,2}	
		T008 ^{1,2}		
	T006 ^{1,2}			
				T011 ^{1,2}
T004 ^{1,2}				
			P159 ^{1,2}	

Facility Name: **General Electric - Electromaterials**
 Application Number: **06-5425**
 Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
	T014 ¹			
			Source Identification Description	Treater 1041 with Oven
T012 ^{1,2}			Treater 1040 with Oven	
		T016 ²		
	T017 ^{1,2}			
T013 ^{1,2}				
		T018 ^{1,2}		
	T015 ²			

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

Ohio EPA Source <u>Number</u>	Source Identification <u>Number</u>	BAT <u>Determination</u>	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>
Treater 1023 with Oven	Reactor 9 GETEK line	Weigh Hopper and Reactor 2 GETEK line	GETEK line	Hold Tank 1 GETEK line
	(14) Resin Hold Tanks GETEK line		Mix Tank 1 GETEK line	
		Equilibration hold Tank and Weigh Hopper 1 GETEK line		
	Weigh Hopper and Reactor 1 GETEK line		Mix Tank 2 GETEK line	Hold Tank 2 GETEK line
		Equilibration hold Tank and Weigh Hopper 2		

Facility Name: **General Electric - Electromaterials**
 Application Number: **06-5425**
 Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		(2) Gravity Tanks for TR 1040 GETEK line		
Weigh Hopper and Mix Tank 3 TS line	Hold Tank 3 TS line			(2) Gravity Tanks for TR 1041 TS line
			(2) Gravity Tanks for TR 1023 TS line	
		(2) Gravity Tanks For TR 1040 TS line		
Weigh Hopper and Mix Tank 4 TS line	Hold Tank 4 TS line			(2) Gravity Tanks for TR 1020 TS line
			(2) Gravity Tanks for TR 1041 GETEK line	
		(2) Gravity Tanks for TR 1023 GETEK line		

Facility Name: **General Electric - Electromaterials**
 Application Number: **06-5425**
 Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
BAT <u>Determination</u>	b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	emissions from the total enclosure to a control device, according to 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.3. (BACT)) Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR	Product recovery reflux condenser with 85 percent reduction, in order to meet 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least

Facility Name: **General Electric - Electromaterials**
 Application Number: **06-5425**
 Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
98 percent efficient according to 40 CFR 52.21.j.2. (BACT)	40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient,	according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the	coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device,	according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the coating	operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT) Install, operate, and

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
40 CFR 52.21 3745-31-through 20 10 through 20 3745-21-(1) 07(G) (1)	40 CFR 52.21 3745-31-10 20 3745-21-07 (G) 3745-21-07 (D) 3745-21-07 (D)	3745-21-07 (D)	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07 (D)
3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-(1) 07 (D)	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07 (G) 3745-21-07 (D) 3745-21-07 (D)	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07 (D)	3745-21-07 (G) (2) 3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07 (G) (2) 3745-21-07 (D)
3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-21-07 (D) 3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07 (G) (2)

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
3745-21-40 07(D)	CFR 52.21 3745-31-10 through 20 3745-21-07(D)		3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	3745-31-10 through 20 3745-21-07(D)
3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21	3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07(D)		
3745-31-10 through 20	3745-31-10 through 20 3745-21-07(D)		3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20	
3745-21-07(D)		3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21 3745-31-10 through 20 3745-21-07(D)		
3745-31-05 40 CFR Part 60 Subpart VVV	3745-31-05 40 CFR 52.21 3745-31-10 through 20 3745-21-07(D)		3745-31-05 40 CFR Part 60 Subpart VVV 40 CFR 52.21	

Facility Name: **General Electric - Electromaterials**
 Application Number: **06-5425**
 Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
	Permit Allowable Mass Emissions and/or Control/Usage Requirements	percent efficient, according to 40 CFR 52.21.j.2. (BACT)	1.95 #NOX/hr, 8.54 TPY NOX; 22.35 VOC/hr as an average over 3 hours; 97.94 TPY VOC*;	0.03 TPY VOC***
1.95 pounds No _x /hr, 8.54 TPY NO _x ; 22.37 VOC/hour; 97.94 TPY VOC*;		1.95 #NOX/hr, 8.54 TPY NOX; 22.35 VOC/hr as an average over 3 hours; 97.94 TPY VOC*;	0.47 #CO/hr, 2.06 TPY CO; Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.3. (BACT)	Less stringent than BACT
0.47 pound CO/hr, 2.06 TPY CO; Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)		0.47 #CO/hr, 2.06 TPY CO; Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)	Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.3. (BACT)	0.24 #VOC/hr 1.11 TPY VOC*
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)		Use of control, this rule is less stringent than BACT.	Use of control, this rule is less stringent than BACT.	Less Stringent than BACT
Install, operate, and maintain a total enclosure around the coating operation and vent the captured VOC emissions from the total enclosure to a control device, according to 40 CFR 60.742.b.2, that is at least 98 percent efficient, according to 40 CFR 52.21.j.2. (BACT)		Use of control, this rule is less stringent than BACT.	0.24 #VOC/hr 1.1 TPY VOC	0.24 #VOC/hr

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
1.1 TPY VOC*	0.71 TPY VOC*,**		Less Stringent than BACT	
				0.11 TPY VOC*,**
Less Stringent than BACT	Less Stringent than BACT	Less Stringent than BACT	0.03 #VOC/hr 0.12 TPY VOC*,**	Less Stringent than BACT
				0.35 TPY VOC*,**
0.71 TPY VOC*,**	0.08 # VOC/hr 0.35 TPY VOC*,**		Less Stringent than BACT	0.11 TPY VOC*,**
				Less Stringent than BACT
Less Stringent than BACT	Less Stringent than BACT		0.03 #VOC/hr 0.13 TPY VOC*,**	Less Stringent than BACT
				0.35 TPY VOC*,**
			Less Stringent than BACT	
	0.08 # VOC/hr 0.35 TPY VOC*,**			0.8 TPY VOC*,**

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		Less Stringent than BACT		
Less Stringent than BACT	Less Stringent than BACT			
		0.16 TPY VOC*,**		
0.16 TPY VOC*,**	0.16 TPY VOC*,**			
		Less Stringent than BACT		
Less Stringent than BACT	Less Stringent than BACT			
		0.16 TPY VOC*,**		
	0.8 TPY VOC*,**			
0.8 TPY VOC*,**		Less Stringent than BACT		

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
-------------------------------	-------------------------------------	--------------------------	-------------------------------------------	--------------------------------------------------------------------------

^{1,2} The applicant has submitted 2 possible scenarios for plant modification. Under Scenario A, Treater 1040 will be installed and 1023 will be modified. Under Scenario B, Treater 1040 will be installed and new treater 1041 will also be installed, leaving 1023 unchanged.

¹ These units will be installed/modified if Scenario A is employed.

² These units will be installed if Scenario B is employed.

* The overall VOC emissions from each of 2 thermal oxidizers shall not exceed 23.14 pounds/hour and 101.35 TPY VOC.

** VOC emissions from tanks with TS M/L Resins are less than GETEK. GETEK represents worst case emissions for the project. Either GETEK or TS M/L products are produced on the treater at one time but the system is not capable of producing both simultaneously.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year*</u>	<u>Net Increase Tons/Year</u>
VOC	203.96	207.5
NO _x	17.1	
CO	4.12	

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

- * A new 10,000 gallon VOC storage tank is also being installed as part of this project; it's emissions are DeMinimis (<1 TPY) under OAC 3745-15-05.

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>		<u>Source Description</u>
	P155	
	T018	
P034		Reactor 9
T003		Resin Hold Tanks (14)
P156		Weigh Hopper and Reactor
P157		1
T004		Weigh Hopper and Reactor
		2
T005		Equilibration Hold Tank
		and Weigh Hopper 1
T006		Equilibration Hold Tank
T007		and Weigh Hopper 2
T008		Mix Tank 1
P158		Mix Tank 2
		Hold Tank 1
P159		Weigh Hopper and Mix Tank
		3
T009		Weigh Hopper and Mix Tank
T010		4
T011		Hold Tank 2
T012		Hold Tank 3
		Hold Tank 4
T013		Gravity Tanks TR 1040
		(GETEK)
P154		Gravity Tanks TR 1040 (TS
T014		M/L)
		Treater 1040 with Oven
T017		Gravity Tanks TR 1023
		(GETEK)
P151		Gravity Tanks TR 1023 (TS
T015		M/L)
		Treater 1023 with Oven
T016		Gravity Tanks TR 1041

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

(GETEK)

Gravity NSPS Regulation (Subpart)

Tanks TR

1041 (TS VVV

M/L) VVV

Treater VVV

1041 with VVV

Oven VVV

Gravity

Tanks TR VVV

1020 TS

M/L) VVV

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

22

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Ohio EPA, Southeast District Office**
2195 Front Street
Logan, OH 43138

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.

23

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutant(s):

Source

Pollutant(s)

**all units on
NSPS list**

OC and toluene, NO_x

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Southeast District Office, 2195 Front Street, Logan, OH 43138.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

24

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA, Southeast District Office, 2195 Front Street, Logan, OH 43138.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

ADDITIONAL SPECIAL TERMS AND CONDITIONS

I. OPERATIONAL TERMS AND CONDITIONS

A. Federally Enforceable

1. The incinerator(s) for GE6 and either GE7 (if Treater 1041 is installed) or GE2 (if Treater 1023 is modified), must be operated and maintained such that it destroys VOC emissions by at least 98 per cent, according the Best Available Control Technology requirements, 40 CFR 52.21.j.2 and 40 CFR 52.21.j.3.
2. The coating mix preparation equipment shall be vented to a control device while preparation of the coating is taking place within the vessel; and the control device efficiency (E or H_{sys} , as applicable) determined using Equation (1) or Equations (3) and (4), respectively, specified in § 60.743 and the test methods and procedures specified in § 60.745 (b) through (g) is equal to or greater than 0.98.
3. While the emissions units are in operation, the permanent total enclosure shall be maintained under a negative pressure. The differential pressure shall not fall below the average pressure differential established during the most recent emission test demonstrating compliance.
4. While the treaters are in operation, the combustion temperature within the thermal incinerators shall be no more than 50 degrees Fahrenheit below the average temperature established during the most recent emission test demonstrating compliance.
5. The Reactor number 9 condenser temperature shall be maintained in the range to ensure 85 perfcnt reduction.

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

B. State Enforceable

1. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for PTI number 06-5425 or other coatings approved pursuant to the Ohio EPA's "Air Toxics Policy". In conjunction with the best available technology requirements of OAC rule 3745-31-05, the VOC emission limitation(s) specified in this permit were established in accordance with the Ohio EPA's "Air Toxics Policy" and are based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the ISCST3, Version 96113 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each pollutant:

Pollutant: Toluene

TLV (ug/m3): 188,000 ug/m3

Maximum Hourly Emission Rate (lbs/hr): 46.6 #VOC/hr

Predicted 1 Hour Maximum Ground-Level Concentration at the Fence line (ug/m3): 803 ug/m3

Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4476 ug/m3

Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required, including the possible issuance of modifications to PTI number 06-5425 and the operating permit:

- a. any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table;
- c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01; and,
- d. any change in the composition of the coatings or cleanup materials, or use of new coatings or cleanup materials, that would result in the emission of any of the exempted organic compounds included in the definition of "VOC" [OAC rule 3745-21-01(B)(6)].

This provision will be superseded upon approval by the US EPA of a National Emission Standard for Hazardous Air Pollutants (NESHAP) applicable to any of the operations addressed in this permit.

2. According to the Ohio EPA, Division of Drinking and Ground Water, there shall be no cross connection between the proposed facilities and any public water supply.

II. MONITORING AND RECORDKEEPING REQUIREMENTS

- A. As specified in 40 CFR 60.744.e, the permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the control equipment:

1. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation; and,
2. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance.

B. The permittee shall collect and record the following information for all surface coatings and clean up material for the purpose of determining annual organic compound emissions:

1. the company identification for each coating and cleanup material employed;
2. the number of gallons of each coating including photochemically reactive cleanup material, and nonphotochemically reactive cleanup material employed;
3. the organic compound content of each coating including cleanup material, in pounds per gallon; and,
4. the total controlled organic compound emission rate for all coatings and cleanup materials, in pounds or tons (i.e., calculated using the overall control efficiency from the most recent

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

performance test that demonstrated that the emissions unit was in compliance).

- C. The permittee shall install, maintain and operate monitoring devices and a recorder which simultaneously measure and record the pressure inside and outside the permanent total enclosure. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

1. the difference in pressure between the permanent total enclosure and the surrounding area(s); and,
 2. a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- D. The permittee shall maintain records of the total natural gas usage in the treater ovens and the thermal oxidizers to determine compliance with NOX emissions limits.
- E. The permittee shall monitor and record the Reactor number 9 condenser temperature.

III. REPORTING REQUIREMENTS

1. As specified in 40 CFR 60.747.d.4, the permittee shall submit quarterly deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance. If no reportable periods have occurred, the permittee shall submit semiannual statements clarifying this

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

fact.

2. The permittee shall submit quarterly summaries which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation. If no reportable periods have occurred, the permittee shall submit semiannual statements clarifying this fact.
3. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.

IV. EMISSION TESTING REQUIREMENTS AND COMPLIANCE METHOD DETERMINATIONS

- A. Compliance with the emission limitation(s) in the Emissions Summary of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation (P154, P155 and P151)

1.95 pounds/hour and 8.54 tons/year NO_x

Applicable Compliance Method

AP-42, 5th Edition, table 1.4-2 uncontrolled NO_x emission factors:

Drying Oven - (5,500 cft of gas/hour) (100 #NO_x/10⁶ cubic feet of gas) = 0.55 #NO_x/hr

Thermal Oxidizer - (10,000 cft of gas/hour) (140 #NO_x/10⁶ cubic feet of gas)=1.4 #NO_x/hr

Emission Limitation (P154, P155 and P151)

0.47 pound and 2.06 tons/year CO

Applicable Compliance Method

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

AP-42, 5th Edition, table 1.4-2 uncontrolled CO emission factors:

Drying Oven - (5,500 cft of gas/hour) (21 #CO/10⁶ cubic feet of gas) = 0.12 #CO/hr

Thermal Oxidizer - (10,000 cft of gas/hour) (35 #CO/10⁶ cubic feet of gas)=0.35 #CO/hr

Emission Limitation (P154, P155, P151 and associated sources)

23.15 pounds hour and 101.4 tons/year VOC overall limitation for each thermal oxidizer (individual emisisions limits for all units venting ot a thermal oxidizer shall be considered to be met if this limit is met)

Applicable Compliance Method

Method 25, 40 CFR Part 60, Appendix A

Emission Limitation (P154, P155 P151)

98 percent control efficiency for the thermal oxidizer

Applicable Compliance Method

Method 204, 40 CFR Part 51, Appendix M

Emission Limitations (P160)

0.24 pounds/hour and 1.1 tons/year VOC

Applicable Compliance Method

One time calculation using emisison factors and performance testing if required.

B. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

1. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

2. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for VOC.
3. The test method(s) which must be employed to demonstrate compliance with the overall control efficiency limitation for VOC are specified below - if applicable. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
4. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10, 40 CFR 60.743 and 40 CFR 60.745. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA

Facility Name: **General Electric - Electromaterials**

Application Number: **06-5425**

Date: **Draft PTI (date will be entered upon final issuance)**

District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.